

WHAT IS CLAIMED IS:

1                   1. A method of estimating purchases made by  
2 customers of a supplier of interest from other suppliers,  
3 wherein the method is performed on a computer, and wherein  
4 the method comprises the following steps:

5                   a) reading panelist data regarding purchases made  
6 by panelists from the supplier of interest and from the  
7 other suppliers, wherein the panelists are a subset of the  
8 customers;

9                   b) determining a relationship between the pur-  
10 chases made by the panelists from the supplier of interest  
11 and the purchases made by the panelists from the other  
12 suppliers;

13                   c) reading customer data regarding purchases made  
14 by the customers from the supplier of interest; and,

15                   d) based upon the customer data and the relation-  
16 ship, estimating the purchases made by the customers from  
17 the other suppliers.

1           2. The method of claim 1 wherein step a) com-  
2           prises the step of aggregating the panelist data according  
3           to categories, and wherein step (c) comprises the step of  
4           aggregating the customer data according to categories.

1           3. The method of claim 2 wherein the aggregated  
2           data includes a number of dollars that each panelist spent  
3           with the supplier of interest by category and a number of  
4           dollars that each panelist spent with the other suppliers by  
5           category.

1           4. The method of claim 3 wherein the aggregated  
2           data includes share for the supplier of interest and share  
3           for the other suppliers by category.

1           5. The method of claim 2 comprising the step of  
2           performing an unrotated principal components factor analysis  
3           on at least one of the aggregated panelist data and the  
4           aggregated customer data.

1                   6. The method of claim 5 comprising the step of  
2 determining predictor variables based upon on at least one  
3 of the aggregated panelist data and the aggregated customer  
4 data.

1                   7. The method of claim 6 wherein the predictor  
2 variables include the following: factors  $F_1$  through  $F_i$   
3 resulting from the performing step; a total number of trips  
4 in which dollars were spent in a category; and, a total  
5 number of dollars spent in a category.

1                   8. The method of claim 7 wherein the predictor  
2 variables also include the following: the squares of the  
3 factors  $F_1$  through  $F_i$ ; interdependent factors based upon  
4 products of the factors  $F_1$  through  $F_i$ ; a square of the  
5 total number of trips; and, a square of the total number of  
6 dollars.

1                   9. The method of claim 6 wherein the predictor  
2 variables include factors  $F_1$  through  $F_i$  resulting from the  
3 performing step.

1                   10. The method of claim 9 wherein the predictor  
2 variables also include the squares of the factors  $F_1$  through  
3  $F_i$ .

1                   11. The method of claim 9 wherein the predictor  
2 variables also include interdependent factors based upon  
3 products of the factors  $F_1$  through  $F_i$ .

1                   12. The method of claim 6 wherein the predictor  
2 variables include a total number of trips in which dollars  
3 were spent in a category.

1                   13. The method of claim 12 wherein the predictor  
2 variables also include a square of the total number of  
3 trips.

1                   14. The method of claim 6 wherein the predictor  
2 variables include a total number of dollars spent in a  
3 category.

1                   15. The method of claim 14 wherein the predictor  
2 variables also include a square of the total number of dollars.

1                   16. The method of claim 6 comprising the step of  
2 determining criterion variables based upon at least one of  
3 the aggregated panelist data and the aggregated customer  
4 data.

1                   17. The method of claim 16 wherein the step of  
2 determining criterion variables comprises the step of divid-  
3 ing the panelists into buckets and of determining the crite-  
4 rion variables as the number of panelists in each bucket.

1                   18. The method of claim 16 comprising the steps  
2 of executing a routine in order to generate a set of scoring  
3 rules, and creating new predictor variables based upon the  
4 scoring rules.

1                   19. The method of claim 18 wherein the step of  
2 creating new predictor variables based upon the scoring  
3 rules comprises the steps of inputting the panelist data and  
4 the customer data to the scoring rules by product category

5 and by bucket of panelist IDs and summing an output of the  
6 scoring rules by product category and by bucket.

1 20. The method of claim 18 comprising the step of  
2 performing a linear regression based upon the new predictor  
3 variables and the criterion variables in order to generate  
4 the relationship, wherein the relationship is a linear  
5 relationship.

1 21. The method of claim 20 wherein step d) com-  
2 prises the step of applying the customer data to the linear  
3 relationship.

1 22. The method of claim 1 comprising the step of  
2 performing an unrotated principal components factor analysis  
3 on at least one of the panelist data and the customer data.

1 23. The method of claim 22 comprising the step of  
2 determining predictor variables based upon on at least one  
3 of the panelist data and the customer data.

1                   24. The method of claim 23 comprising the step of  
2 determining criterion variables based upon on at least one  
3 of the panelist data and the customer data.

1                   25. The method of claim 24 comprising the step of  
2 performing a linear regression based upon the predictor  
3 variables and the criterion variables in order to generate  
4 the relationship, wherein the relationship is a linear  
5 relationship.

1                   26. The method of claim 25 wherein step d) com-  
2 prises the step of applying the customer data to the linear  
3 relationship in order to estimate the purchases made by the  
4 customers from the other suppliers.

1                   27. The method of claim 1 comprising the step of  
2 performing an unrotated principal components factor analysis  
3 on the customer data.

1           28. The method of claim 27 comprising the step of  
2 performing a linear regression based upon the panelist data  
3 in order to generate the relationship, wherein the relation-  
4 ship is a linear relationship.

1           29. The method of claim 28 wherein step d) com-  
2 prises the step of applying the customer data to the linear  
3 relationship.  
4

1           30. A method of estimating purchases made by  
2 customers of a supplier of interest from other suppliers,  
3 wherein the method is performed on a computer, and wherein  
4 the method comprises the following steps:  
5

6           a) reading customer data regarding purchases made  
7 by the customers from the supplier of interest;

8           b) reading panelist data regarding purchases made  
9 by panelists from the supplier of interest and from the  
10 other suppliers, wherein the panelists are a subset of the  
11 customers; and,

12           c) based upon the customer data and the panelist  
13 data, estimating purchases made by the customers from the  
other suppliers.



1                   31. The method of claim 30 wherein step c) com-  
2                   prises the step of aggregating the customer data and the  
3                   panelist data according to categories.

1                   32. The method of claim 31 wherein step c) com-  
2                   prises the step of performing an unrotated principal compo-  
3                   nents factor analysis on at least a portion of the aggre-  
4                   gated data.

1                   33. The method of claim 32 wherein step c) com-  
2                   prises the step of determining predictor variables based  
3                   upon the performing step and upon at least a portion of the  
4                   aggregated data.

1                   34. The method of claim 33 wherein step c) com-  
2                   prises the step of performing a linear regression on the  
3                   predictor variables in order to generate a linear equation  
4                   for each category.

1           35. The method of claim 34 wherein step c) com-  
2       prises the step of estimating the purchases made by the  
3       customers from the other suppliers in each category by  
4       plugging the customer data into the linear equation for each  
5       category.

1           36. The method of claim 30 wherein step c) com-  
2       prises the step of performing an unrotated principal compo-  
3       nents factor analysis based upon at least one of the panel-  
4       ist data and the customer data.

1           37. The method of claim 36 wherein step c) com-  
2       prises the step of creating a linear equation based upon  
3       results from the unrotated principal components factor  
4       analysis.

1           38. The method of claim 37 wherein step c) com-  
2       prises the step of estimating the purchases made by the  
3       customers from the other suppliers by plugging the customer  
4       data into the linear equation.

1                   39. A method of estimating purchases made by  
2 customers of a supplier of interest, wherein the method is  
3 performed on a computer, and wherein the method comprises  
4 the following steps:

5                   a) determining a linear relationship between  
6 purchases made by panelists from the supplier of interest  
7 and purchases made by the panelists from the other suppli-  
8 ers; and,

9                   b) estimating purchases by the customers from the  
10 other suppliers based upon the linear relationship.

1                   40. The method of claim 39 wherein step b) com-  
2 prises the step of estimating purchases from the other  
3 suppliers made by the customers of the supplier of interest  
4 based upon the linear relationship and purchases made by the  
5 customers from the supplier of interest.

1                   41. The method of claim 39 wherein the panelists  
2 are a subset of the customers.

1           42. The method of claim 41 wherein step b) com-  
2       prises the step of estimating purchases from the other  
3       suppliers made by the customers of the supplier of interest  
4       based upon the linear relationship and purchases made by the  
5       customers from the supplier of interest.

1           43. A system for estimating purchases made by  
2       customers of a supplier of interest comprising:

3           analyzing means for analyzing purchases made by  
4       the customers from the supplier of interest and purchases  
5       made by panelists from both the supplier of interest and  
6       other suppliers, wherein the panelists are a subset of the  
7       customers of the supplier of interest; and,

8           estimating means for estimating purchases by the  
9       customers from the other suppliers based upon the analyzed  
10      purchases.

1           ~~44. The method of claim 43 wherein the analyzing~~  
2       ~~means comprises means for performing an unrotated principal~~  
3       ~~components factor analysis based upon purchase data.~~

1 45. The method of claim 44 wherein the analyzing  
2 means comprises means for determining a linear relationship  
3 based upon results from the unrotated principal components  
4 factor analysis.

1 46. The method of claim 45 wherein the linear  
2 relationship relates purchasers made by the panelists from  
3 the supplier of interest to purchases made by the panelists  
4 from the other suppliers.

1 47. The method of claim 45 wherein the estimating  
2 means estimates the purchases by the customers from the  
3 other suppliers based upon the purchases by the customers  
4 from the supplier of interest and upon the linear relation-  
5 ship.

1 48. The method of claim 43 wherein the analyzing  
2 means comprises means for determining a linear relationship  
3 between purchasers made by the panelists from the supplier  
4 of interest and purchases made by the panelists from the  
5 other suppliers.

1                   49. The method of claim 48 wherein the estimating  
2                   means estimates the purchases by the customers from the  
3                   other suppliers by plugging the purchases by the customers  
4                   from the supplier of interest into upon the linear relation-  
5                   ship.